Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claim 1 (previously presented). A linear measuring system, comprising:

a scale including at least two segments identically created for the generation of absolute values, each of said at least two segments including a measurement track for generating the absolute value within said segments recorded by an appropriate scanning head, and at least one suitable track for determining the absolute value of the particular segment reached by a sensor arrangement; and a switching device using the generated absolute value within said segments and the determined absolute value of said segment to provide the total absolute value for further processing;

said scale being a structured material characteristic or a structured surface on a material.

Claim 2 (previously presented). The measuring system according to claim 1, wherein said at least one suitable track

is at least one part of said measurement track composed of one or more tracks.

Claim 3 (previously presented). The measuring system according to claim 1, wherein said at least one suitable track is at least one parallel track applied onto said scale.

Claim 4 (previously presented). The measuring system according to claim 1, wherein said segments are formed with the same code sections.

Claim 5 (previously presented). The measuring system according to claim 3, wherein said parallel track is formed for magnetic signal recording.

Claim 6 (previously presented). The measuring system according to claim 5, wherein said parallel track contains permanent magnetic segments.

Claim 7 (previously presented). The measuring system according to claim 1, further comprising an auxiliary power battery outside and/or inside said further sensor arrangement for emergency supply.

Claim 8 (previously presented). The measuring system according to claim 1, wherein said sensor arrangement includes at least two identical and staggered sensors whose measured values are used for redundant signal evaluation by an external control system.

Claim 9 (previously presented). The measuring system according to claim 1, wherein the measuring system is based on optical, sound, ultrasound, magnetic, inductive, electromagnetic, or capacitive measuring systems or a combination thereof.

Claim 10 (previously presented). The measuring system according to claim 1, wherein the absolute value of the segment reached is determined by logical evaluation of the traversed segments from a defined starting position.

Claim 11 (previously presented). The measuring system according to claim 1, wherein said structured material characteristic is a patterned material characteristic.

Claim 12 (previously presented). The measuring system according to claim 1, wherein said structured surface is a patterned surface.

Claim 13 (previously presented). The measuring system according to claim 1, wherein said scale with said measurement track is one of a structure and a pattern of a measuring object, the one of the structure and the pattern being provided substantially only in an operating range of sensors.

Claim 14 (previously presented). The measuring system according to claim 1, wherein said scale with said measurement track is a machined surface structure of a material.

Claim 15 (previously presented). The measuring system according to claim 1, wherein said scale with said measurement track is a lacquer layer structured with ultrasound.

Claim 16 (previously presented). The measuring system according to claim 1, wherein said scale is provided underneath a surface of a measuring object such that said scale can be detected by a sensor.

Claim 17 (new). The measuring system according to claim 1, wherein the absolute value of the segments and the determined absolute value within the segment are linear values.

Claim 18 (new). The measuring system according to claim 1, wherein the absolute value of the segments and the determined absolute value within the segment are angular values.